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WITNESS my hand this
Twenty-ninth day of July 2004

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AUSTRALIA

PATENTS ACT 1990

PROVISIONAL SPECIFICATION

FOR THE INVENTION ENTITLED:-

" A METHOD OR APPARATUS FOR ALLOCATING A PLAYER'S CONTRIBUTION IN A GAMING APPARATUS BETWEEN A PLURALITY OF GAMES "

The invention is described in the following statement:-

FIELD OF THE INVENTION

The present invention relates to an apparatus and method for allocating a player's contribution in a gaming apparatus between a plurality of games.

The invention has been developed primarily for use with a plurality of interlinked gaming terminals in one or more gaming establishments and will be described hereinafter predominantly with reference to this application. However, the invention is not limited to that particular field of use and is also suitable for use with online gaming, lotto, pools, lotteries, art unions, bingo, raffles and other games involving one or more wagers being placed upon an outcome having a finite probability of occurring. Additionally, the invention is applicable to any type of gaming, such as gaming that may be entered into on a personal computer via the Internet, for example.

BACKGROUND

The discussion of the prior art within this specification is to assist the addressee understand the invention and is not an admission of the extent of the common general knowledge in the field of the invention and is included without prejudice.

It is known to "link" gaming terminals to provide a number of additional functionalities. This includes the ability to control the awarding of a prize, as the pool of available funds is greater and the amount of funds available is known rather than having to be estimated. Another functionality of interlinked gaming terminals is that secondary gaming is possible. For example, for a given group of interlinked gaming terminals, a central display provides the gamers with a visual indication of a presently available jackpot prize that is being incrementally increased as the gamers operate the interlinked gaming terminals.

It is known by the gamers that the prize will be awarded when it is incremented to a randomly selected value that is less than a predefined value. Typically, the predefined value will also be visually indicated to the gamers by the display. The use of such functionality is intended to provide additional impetus to the gamers

to play the terminals and thereby win the jackpot prize in addition to any prize available to be awarded by the respective terminal.

It is known in gaming systems to specify the proportion of what a player inputs to a game that is returned to that player. This measure is referred to as the Return to Player (RTP) amount and is expressed as a percentage of the player input i.e. as the RTP percentage. The RTP can be described as the proportion of the value input by a player that contributes to the prizes paid out by the machine. The actual value of the RTP is determined by the attributes of the gaming device itself i.e. the likelihood of a winning combination accruing within a specified time period. Where the gaming device is a so called a "pokie" or "fruit" machine, the RTP% is determined by the probability of the winning combinations of symbols occurring on the reels over a given time. The time over which the RTP% is calculated is referred to as a cycle and is the number of plays of the game that would need to be played so that all possible sequences of symbols appear to the player.

In known gaming systems the RTP% is controlled by the manufacturer, operator or venue controller prior to gaming devices being available for play. The RTP% may be displayed to the players as required in some jurisdictions. The RTP% may be varied where gaming systems are provided with the functionality to enable the selection of the RTP%. In some cases this may be from a predetermined set of RTP% values (also known as variations). The manufacturer of the gaming system commonly determines such variations.

As noted above, gaming machines may be linked to other such machines to provide secondary gaming facilities such as a communal jackpot i.e. a jackpot that can be won by playing any one of an associated group of machines. The communal jackpot is available over and above the possible prizes from the base game being played on each individual machine. In this situation the RTP% is split between the base game and the communal game. The manufacturers of the gaming system traditionally determine the proportion of the split.

One problem with the prior art arrangement is that it is difficult from the controller's point of view to understand which of the split configurations is preferred by the users and in what circumstances. This makes the choice of how and when to provide configurations difficult.

SUMMARY OF THE INVENTION

It is an object of the present invention to overcome or ameliorate at least one of the disadvantages of the prior art, or to provide a useful alternative.

According to a first aspect of the present invention there is provided a method for allocating a player's contribution in a gaming apparatus between a plurality of games, the method comprising the steps of:

a) receiving a contribution from a user;

b) splitting the contribution into a number of parts in accordance with a predetermined ratio;

c) allocating at least one of the parts of the contribution to one of the games; and

d) selecting the predetermined ratio in response to an input by the player of the gaming apparatus.

In a preferred embodiment, in step b) the contribution is split into two parts and each part is allocated to a respective game in step c). In some embodiments each game is provided by a respective gaming device. Alternatively, each game is provided by the same gaming device. Other embodiments, include the step of selecting from the plurality of games in response to an input from the player, the or each game to which the contribution is allocated.

In an alternative embodiment the predetermined ratio is selected from a set of predetermined ratios. Preferably, the set of ratios comprises a full range of possible ratios or alternatively the set of ratios is selected from group of such sets.

In a further alternative, the set of predetermined ratios from which the user makes a selection is varied in response to one or more predetermined conditions such as the time of day, the current state of play of a given game, or the current gaming activity within a particular gaming environment. In a yet further alternative the set of predetermined ratios are varied in a random or pseudo random manner.

According to a second aspect of the present invention there is provided apparatus for allocating a player's contribution in a gaming apparatus between a plurality of games, the method comprising the steps of:

a) input means for receiving a contribution from a user;

b) splitting means for splitting the contribution into a number of parts in accordance with a predetermined ratio;

c) allocating means for allocating at least one of the parts of the contribution to one of the games; and

d) selection means operable by the player of the gaming device to determine the predetermined ratio.

According to a third aspect of the present invention there is provided apparatus for enabling a user of a gaming machine to control the distribution of the user's contribution to a game, the apparatus comprising:

a display operable to indicate a plurality of possible distributions to the user;

at least one control means operable by the user to indicate a choice of one of the distributions,

communication means for communicating the user's choice to the gaming machine.

In some embodiments the control means is provided by a dial, push buttons or a slider switch. Preferably the control means is operable to select the distribution and to start the respective game. More preferably the control means is operable by the user to hold the selected distribution for a given game for use in a

subsequent game or games. The control means may operable to prompt the user to select a distribution for each game played.

Unless the context clearly requires otherwise, throughout the specification the words "comprise", "comprising" and the like are to be construed in an inclusive as opposed to en exclusive sense; that is to say, in the sense of "included, but not limited to".

BRIEF DESCRIPTION OF THE DRAWINGS

Preferred embodiments of the invention will now be described, by way of example only, with reference to the accompanying drawings in which:

Figure 1 is a schematic representation of a gaming system comprising gaming terminals;

Figure 2 is a schematic representation of a control panel associated with one of the gaming terminals of figure 1;

Figure 3 is a schematic representation of the hardware associated with each of the gaming system of figure 1; and

Figure 4 is a flow chart showing steps performed by the gaming machines of figure 1.

DETAILED DESCRIPTION

Figure 1 shows a gaming system 101 comprising a number of gaming machines 103 in communication with a system controller 105 via a network 107. The system controller 105 is connected to a display 109. The system controller is provided with a connection 111 to another system controller (not shown). Each gaming machine 103 comprises a screen 115 for displaying the game, which the terminal 103 offers, and a set of user controls 117 through which a user (not shown) inputs their choices in the running of the game. Each gaming machine has a payment port 119 such as a coin slot or electronic card reader to enable the user to pay for the game to be played.

In return for a user submitting a suitable payment via the payment port 119 the

gaming machine 103 enables the user to play a game of chance. The game may result in the user winning a prize. The likelihood of a gaming machine 103 awarding a prize for a particular game play is determined by the design of the game. The game is designed to pay out in prizes a percentage of what users pay in over a predetermined number of game plays i.e. the Return To Player % (RTP%).

In the arrangement of figure 1, users are able to participate in two games that are linked. The first game is provided by the gaming machines 103 as described above, and the jackpot controller 105 provides a second game. The second game is a communal jackpot built up from contributions from each of the gaming machines 103. The jackpot is incremented towards an upper limit by the value of each contribution as it is received from the gaming machines 103 via the network 107. The jackpot controller 105 uses the display 109 to show the current value of the jackpot to the users of the gaming machines 103. The jackpot controller 105 is arranged to award the jackpot prize when the jackpot value increments over an undisclosed threshold. The threshold is set randomly or pseudo randomly on initialization of the system controller 105 or after the system controller 105 is reset in response to the awarding of a previous jackpot.

Since the first game provided by the gaming machines 103 is linked to the second game provided by the game controller 105, the RTP (which can be described as the money held aside from a user's payment to pay out prizes) is split between the first and second games. Each gaming machine 103 is arranged to split the RTP from a game play in accordance with a predetermined percentage. The value of the RTP that is allocated to the second game is communicated to the jackpot controller 105 via the network 107. This is the contribution referred to above that the jackpot controller 105 uses to increment the jackpot value. The jackpot is incremented by the value of the contribution i.e. the value of the RTP allocated to the second game.

In prior art gaming systems the proportions used to split the RTP between linked games has been under the control of the proprietors or controllers of the gaming

system 1. Table 1 below sets out examples of the options available in such systems to vary the split of RTP between games.

Option	First Game RTP%	Second Game RTP%	Total/Combined RTP%
1	= 86.5%	$25 to $50 = 4%	90.5%
2	= 87.5%	$25 to $50 = 3%	90.5%
3	= 88.5%	$25 to $50 = 2%	90.5%
4	= 90.5%	$25 to $50 = 0%	90.5%

Table 1

In the present embodiment, the user is provided with the option to vary the split of the RTP between the first and second games. As shown in table 1 above, four options are available in which the split of RTP% between the first game and the second game varies. As shown in the fourth column, the total RTP% (i.e. the combination of the RTP for the first and second games) remains constant over the four options at 90.5%. Option 1 has the highest RTP% allocated to the second game (4%). Options 2 and 3 have 3% and 2% respectively. Option 4 effectively switches off the splitting mechanism by allocating 0% from the total RTP to the second game.

For example, if a user pays $0.5 for a game and chooses option 1 from table 1 then the RTP% will be 45.25 cents (and the same for the other three options) However, 43.25 cents will contribute to the prizes paid out for the first game and 2 cents will be communicated to the second game. In response to the receipt of this communication, the second game jackpot prize will be incremented by 2 cents. If the second or third option is chosen then the first game would receive 43.73 cents or 44.25 cents and the second game would receive 1 cent or 1.5 cents respectively. If the user chooses option 4 the first game receives 45.25 cents and the second game receives nothing.

The four split options are available to the user via the control panel 117 of the gaming machine 103 shown in figure 1. Figure 2 shows the relevant part of the

control panel 117 in further detail which is located adjacent a button 201 arranged to start each game play. This part 117 of the control panel is referred to as the split control 203. The split control comprises a first "Maximum Split" button 205, a second "High Split" button 207, a third "Low Split" button 209 and a fourth "No split" button 211. The split control 203 is provided for use prior to each game play at the option of the user. The "Maximum Split" button 205 selects option 1 from table 1, the "High Split" button 207 selects option 2, the "Low Split" button 209 selects option 3 and the "No split" button 211 selects option 4. The split controller 203 also comprises an information panel 213 arranged to provide information to the user relating to the split of the RTP% between the first and second games for each option selectable via the buttons 205, 207, 209, 211.

Figure 3 illustrates a part of the hardware of the gaming machine 103 and the jackpot controller 105. The split control 203 is connected to a first game controller 301 which is in turn connected to a revenue input device 303 and a first accumulator 305. The game controller 301 is also connected via the network 107 to a second game controller 307 in the jackpot controller 105. The game controller 307 is also connected to a second accumulator 309, which is in turn connected to the display 109 (not shown).

The revenue input device 303 is operable to accept monetary input from a user in the form of coins or notes, tokens, payment card or other suitable form of payment. The revenue input device 303 indicates the amount of the payment to the game controller 301, which responds by adding the input value to the accumulator 305. The accumulator is used to store input values and log them against output prizes. The game controller 301 is the element in the gaming machine that actually runs the first game in response to user commands input via the control panel 117 (figure 1). The game controller also controls the paying out prizes as they are won and for communicating the split of the RTP to the second game controller 307. This communication also includes data that identifies to the second game controller 307 which of the gaming machines 103 has provided a given split of the RTP%. The first game controller 301 is also

responsive to signals from the split control panel 203 to modify the RTP% split between the first and second games.

The second game controller 307 responds to the signals from the first game controller by adding the indicated RTP% split value to the accumulator 309 and updating the display 109 (figure 1) with the revised jackpot value. The second game controller 307 is the element of the jackpot controller 105 that runs the second game. In other words, the game controller 307 sets the non-disclosed threshold value at which the jackpot will be paid out, receives signals from the gaming machines and updates the accumulator 309 and the display 109 appropriately. The game controller 307 handles prize payout when a received RTP% split value added to the accumulator 309 causes the jackpot to meet or exceed the payout threshold. When this occurs the game controller 307 identifies which of the gaming machines 103 triggered the jackpot and sends a signal to the identified machine. The first game controller 301 of the identified gaming machine 103 responds to this signal by indicating to the user that the jackpot has been awarded and paying out the jackpot amount. In response to a jackpot award occurring the second game controller 307 resets the jackpot value and generates a new payout threshold before receiving further signals from the gaming machines 103 and incrementing the jackpot value in the accumulator 309 accordingly.

The operating process of one of the gaming machines 103 will now be described with reference to the flow chart of figure 4. At the first step 401 the gaming machine has just been switched on. The process holds this state until a user inputs some monetary value at which point processing moves to step 403. At step 403, the split control is reset to the default level of "No Split" and the corresponding button 211 displays this fact in the split control 203. Processing then moves to step 405 where the user is prompted to change the split-level using the split control 203. If the user chooses an alternative split level then processing moves to step 407 at which the game controller 301 updates its RTP% split parameters in accordance with the input from the user and processing returns to step 405. If at step 405 no change in the RTP split is input

and instead the start button 201 is actuated then processing moves to step 409.

At step 409 the gaming controller starts the game play sequence and while the game is in progress processing continues to step 411. At step 411 the accumulator is updated with the contribution paid by the user for the game in progress and processing moves to step 413. At step 413 the gaming controller extracts from the accumulator the appropriate value of the split RTP% for the second game in accordance with the split parameters determined in step 407 above. This value is then signaled to the second game controller in combination with an indication of the identity of the current gaming machine. Processing then moves to step 415 where it is determined whether a jackpot prize is due in response to any return signal from the second game controller 307. If a prize is due then processing moves to step 417 where the prize is paid and process then moves to step 419. If no jackpot prize signal arrives from the second gaming controller 301 before the end of the game play of the first game then processing moves from step 415 to step 419.

At step 419 it is determined whether a prize is due as a result of the end sequence of the current first game play. If a prize is due then processing moves to step 421 where the prize is paid and the process moves to step 423. At step 423 the accumulator 305 is updated to take into account the prize paid out. If no prize results from the game play then processing moves straight from step 419 to step 425.

At step 425, the gaming controller 301 establishes whether enough credit remains for a further game play and if not processing moves to step 401 where the user is prompted to input more credit. If at step 425 sufficient credit remains then processing moves to step 405 and continues as described above for that step.

Embodiments of the invention provide an element of control to the player by enabling them to change stakes in response to the perceived attractiveness of the second game relative to the first. This is an advantage to both the user and

operator of the gaming system. The user has more control over the game they are playing and is able to strategically modify the proportion of the split. The higher the split to the second game, the higher the user's chance of winning the jackpot. Similarly, if the player may choose to increase their chance of winning in the first game, perhaps preferring smaller wins instead of a chance of winning the larger jackpot.

As a post-manufacture addition to a gaming system, embodiments of the present invention may extend the life of a gaming machine. Furthermore, use of the system embodying the invention and observation of user behavior provide the operator with a better understanding of the players' preferences and performances enabling improved marketing and design of future gaming systems.

In the embodiment described above the user is provided with four options for the RTP% split. In a further embodiment, the user is provided with a choice of splitting the RTP% in any proportion they wish. In another embodiment, the gaming machines are arranged to allow the user to set a random variation of the RTP% split over a ranges of games. In a yet further embodiment the gaming machine is provided with a system to prompt the user to increase the split to the jackpot game when the jackpot reaches a predetermined level. In this embodiment the level could be set by the user or determined by the gaming machine in accordance with a set of predetermined rules. Similarly, the gaming machine could be set by the user to reduce the split to the second game when a certain jackpot level has been reached.

In some embodiments the user is provided with a choice of one of a number of linked or jackpot games to play in conjunction with the first game. The user indicates their choice prior to each sequence of game play or game plays.

In some embodiments, it may be advantageous to enable the user to modify the overall RTP%. In further embodiments the user may be provided with choice from a plurality of sets of variations to the RTP split. Alternatively, different sets

of RPT% split choices could be offered in accordance to different conditions such as the time of day, the state of the current jackpot, the occupancy of a gaming establishment or gaming machine usage (predicted or actual).

In some embodiments of the invention, the split control panel may be modified from the form described above. The panel may be positioned at various locations relative to the gaming machine. The buttons may be arranged to enable the user to select a variable RTP% split using a slider control or by inputting a number via a keyboard or dial arrangement. Also, the RTP split could be designed to reset to a particular split option after each game and the user provided with a hold button, which would keep the split choice from a previous game for use in subsequent games. In some cases, rather than the RTP split being reset when new credit is added as described above, the system may be arranged to reset after a predetermined period of non-play.

Other embodiments of the present invention may provide for a user to personalize their RTP split control setting and allow these settings to be retrieved on a subsequent use of a gaming machine or transferred to another machine. Further embodiments of the present invention may provide a control panel in which the selection of the RTP split and start command are combined into one action i.e. there is no start button but split control button also starts the game.

In further embodiments, the information panel of the split controller may be provided separately from the panel itself or absent. The information panel may be arranged to reveal or "pop up" when requested by a user. The control panel may be provided using any combination of traditional switches and displays or touch screens and so called "soft buttons". The gaming system may be provided purely by software. The hardware block arrangements and software steps used in the above description and respective figures may be varied to suit different applications. The functionally described hardware blocks and software steps may be joined, split or modified. The split control feature may be provided as a software and/or hardware upgrade to the design of existing gaming machines.

It will be understood by those skilled in the art that the apparatus that embodies a part or all of the present invention may be a general purpose device having software arranged to provide a part or all of an embodiment of the invention. The device could be single device or a group of devices and the software could be a single program or a set of programs. Furthermore, any or all of the software used to implement the invention can be communicated via various transmission or storage means such as computer network, floppy disc, CD-Rom or magnetic tape so that the software can be loaded onto one or more devices.

Although the invention has been described with reference to specific embodiments, it will be appreciated by those skilled in the art that it may be embodied in other forms.

DATED this 10th day of May 2004
BALDWIN SHELSTON WATERS
Attorneys for: PALTRONICS AUSTRALASIA PTY LTD

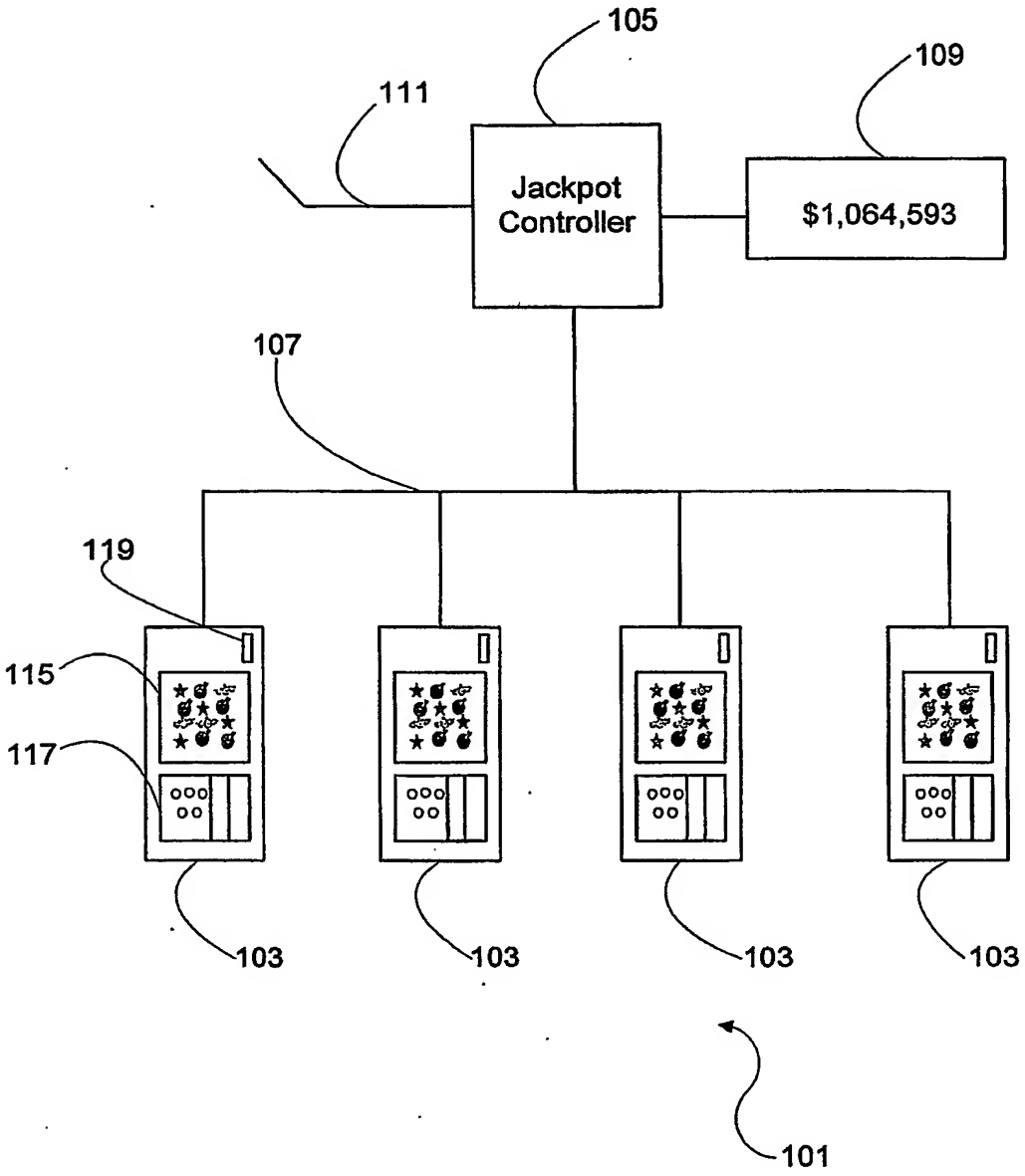
105
109
111
Jackpot Controller
$1,064,593
107
119
115
117
103
103
103
103
101

Figure 1

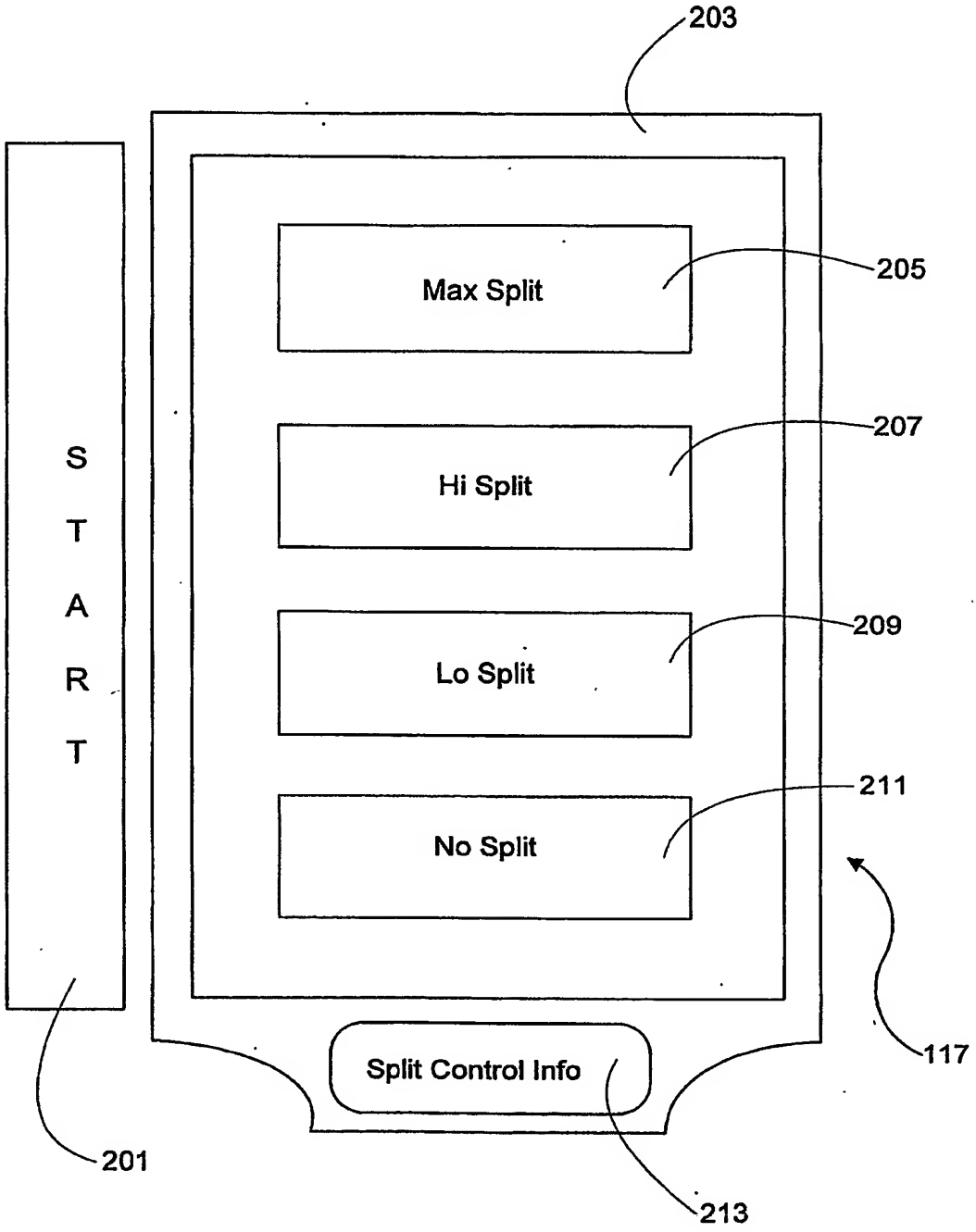
203
Max Split
205
Hi Split
207
Lo Split
209
No Split
211
S
T
A
R
T
Split Control Info
117
201
213

Figure 2

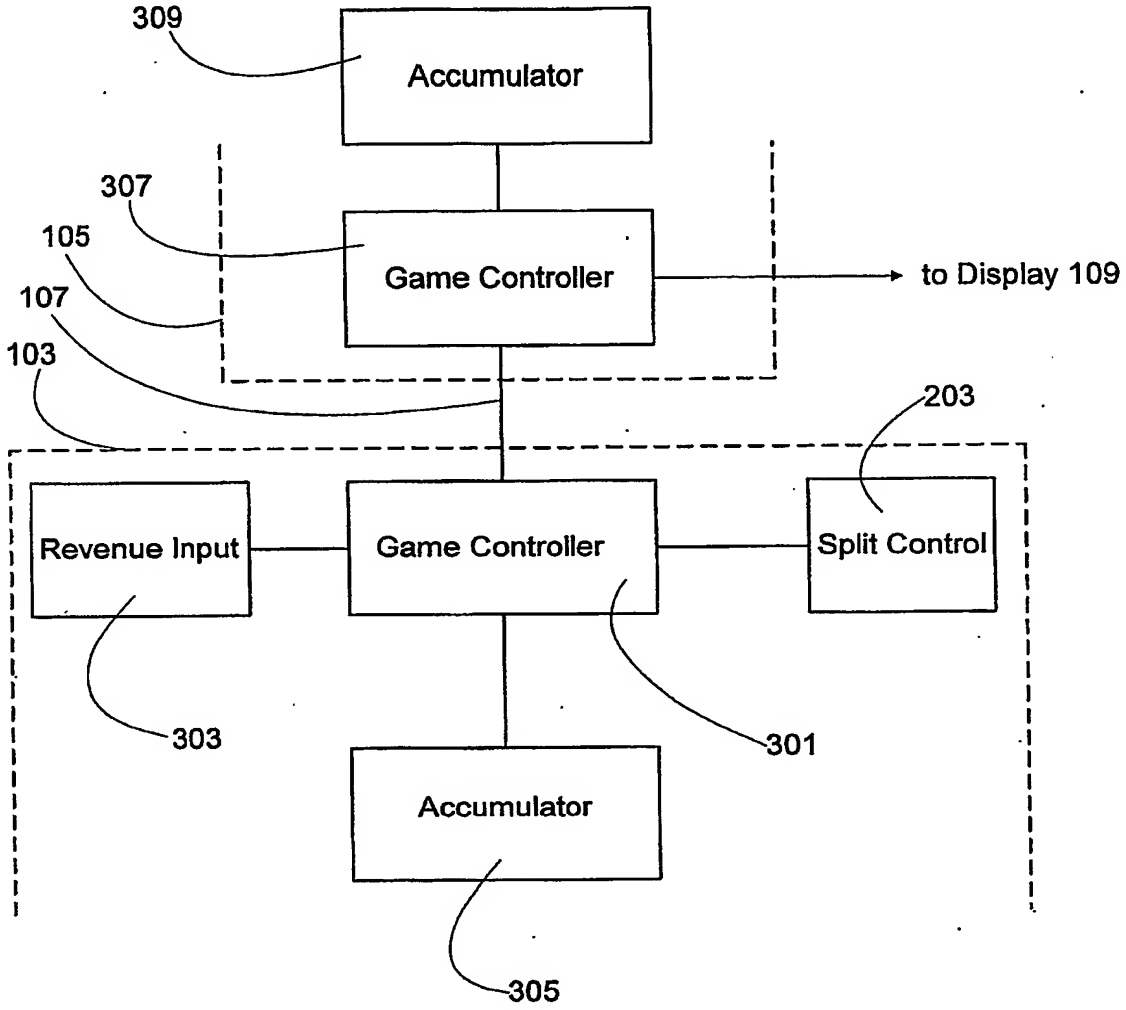
309
Accumulator
307
105
Game Controller
to Display 109
107
103
203
Revenue Input
Game Controller
Split Control
303
301
Accumulator
305

Figure 3

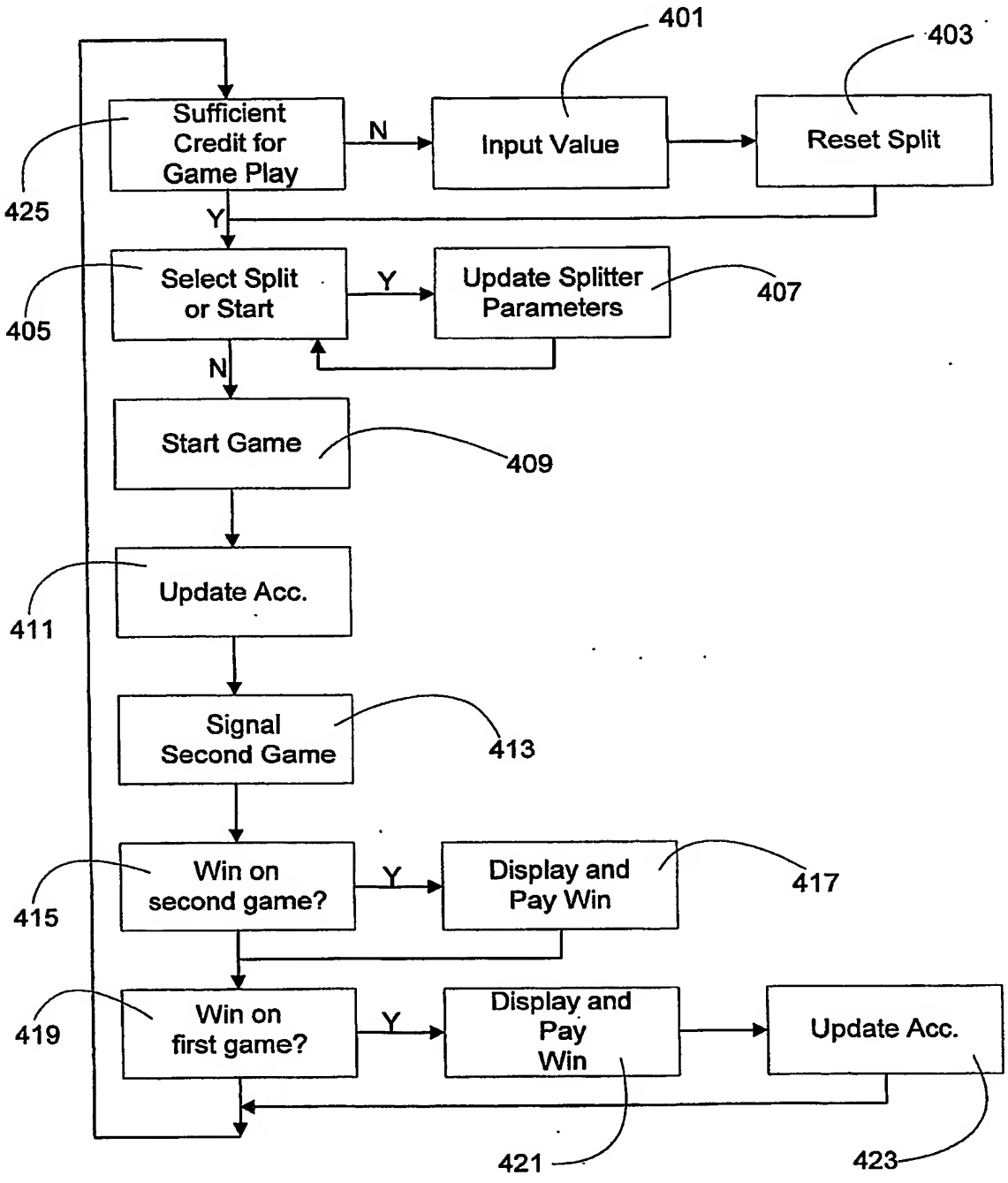
401
403
Sufficient Credit for Game Play
N
Input Value
Reset Split
425
Y
Select Split or Start
Y
Update Splitter Parameters
407
405
N
Start Game
409
Update Acc.
411
Signal Second Game
413
Win on second game?
Y
Display and Pay Win
417
415
Win on first game?
Y
Display and Pay Win
Update Acc.
419
421
423

Figure 4